

**Remarks:**

1. Rejections.

Applicants acknowledge with appreciation that the Examiner does not renew the previous rejections of claims 1-6 under 35 U.S.C. § 112, ¶ 1, as allegedly failing to comply with the written description requirement and of claims 1-6 under 35 U.S.C. § 102(b), as allegedly anticipated by each of Japanese Patent Publication No. JP-A-7-280484 (“JP-‘484”) and U.S. Patent No. 3,768,149 to Swaney, Jr. Further, Applicants acknowledge with appreciation that the Examiner does not renewed the objections to Para. [0011].

Nevertheless, the Office Action maintains the rejections of claims 1-6 under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent No. 2,360,123 to Gerstung et al. (“Gerstung”). Moreover, the Office Action makes these rejections **final**. Applicants respectfully traverse.

2. Gerstung.

Claims 1-6 stand rejected as allegedly anticipated by Gerstung. “A claim is anticipated if and only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference,” and “the identical invention must be shown in as complete detail as contained in the claim.” MPEP 2131 (emphasis added). The Office Action alleges that Gerstung describes each and every element as set forth in claims 1-6. Applicants respectfully traverse.

As Applicants stated previously, the connecting portion is defined by where the adjacent strips are severed. As noted above, Applicants’ claims 1 and 3 describe a fin for a heat exchanger comprising a plurality of waving strips, in which “adjacent waving strips are connected physically only at connecting portions between said first flat portions of said adjacent waving strips and between said second flat portions of said adjacent waving strips, a length ( $T$ ) of an outer surface and an inner surface of each connecting portion in said longitudinal direction of each waving strip is less than or equal to about a thickness ( $t$ ) of a plate forming each waving strip.” Applicants added the specific references to “an outer surface and an inner surface” to the originally filed claim language by amendment in an effort to clarify this distinction. See Appl’n, Para. [0037]; see also Appl’n, Para. [0010], **Figs. 5-6**. As such, Applicants’ claimed invention describes the connecting length ( $T$ ), measured at and between both the outer and the inner

surface of the connecting portion, as less than or equal to about the plate thickness ( $t$ ). Appl'n, Claims 1 and 3 (as amended).

The Office Action contends that according to Gerstung's **Fig. 4**, "connecting portions of an outer surface of an upper flat crest and connecting portions of a lower flat crest are disclosed. The connecting portion on the inner surface of the *lower flat crest* is believed to be the same as the connecting portion on the *upper flat crest*. The structure of where the 'flat crests are not separated' is where the adjoining elements 47 are uncut and not severed . . ." Office Action, Page 3, Lines 10-14 (emphasis in the original).<sup>1</sup> Applicants maintain that the Office Action reads limitations into Gerstung that are not clearly present in Gerstung's specification and does not fully consider the specific language of Gerstung's description.

Gerstung states that "turbulent plates 44 consist of a sheet of metal deformed to provide in it corrugated strip-like elements 47." Gerstung, Page 2, Column 1, Lines 51-53. The corrugations in the elements 47 are "approximately rectangular in contour and are flat crested." Gerstung, Page 2, Column 1, Lines 60-61. Gerstung further states that "except where the crests of the corrugations overlap, [the adjoining elements are] separated from each other to provide openings 48." *Id.* at Lines 62-65. Thus, the overlapping crests define the portions of the adjoining elements that are not separated, and those portions that are not separated define openings 48.

The Office Action, however, proposes to limit the portion not separated to the area between the "upper flat crest" and the "lower flat crest." Neither of which is described in Gerstung's specification. Unlike Applicants' specification and claims, there is no reference in Gerstung to the length "of each connecting portion." Applicants continue to maintain that Gerstung does not suggest, much less disclose, the limitation of the connecting portions to length ( $T$ ). The Office Action labels a connection length ( $T$ ) at the upper and lower surface of the connection between adjacent fins and a thickness ( $t$ ) of the fin in Gerstung's **Fig. 4**. Office Action, Page 5 (annotated **Fig. 4** of Gerstung). Based on the annotated version of Gerstung's **Fig. 4**, the Office Action contends that the labeled thickness ( $t$ ) of Gerstung's fin is greater than

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<sup>1</sup> Although the Office Action indicates that it provides a drawing on which features are identified in red ink, the Office Action includes only a black ink drawing. Office Action, Page 3, Lines 13-15.

the labeled, surface length ( $T$ ). Nevertheless, Gerstung does not discuss or even identify these labeled elements, and Gerstung does not state that its drawings are made to scale.

The Office Action cites MPEP 2125 in support of its assignment of dimensions to upper and lower surface connection portions in Gerstung's **Fig. 4** and in support of its conclusion that those dimensions are equal to length ( $T$ ) and less than an assigned plate thickness ( $t$ ). See Office Action, Page 4, Line 1. This reliance is misplaced. MPEP 2125 states that "[w]hen the reference does not disclose that the drawings are to scale and is silent as to the dimensions, arguments based on measurement of the drawings features are of little value." MPEP 2125, pg. 2100-66 (8th ed., Rev. 2 May 2004).<sup>2</sup> As noted above, however, Gerstung's **Fig. 4** is not identified as to scale and is silent as to the length of any connection portion.

The Office Action contends that it is "not relying upon the proportions in the drawings to determine a specific dimension," but merely to disclose a "proportional relationship." Office Action, Page 4, Lines 1-6. This is not entirely correct. The Office Action is relying on dimensions that it has assigned to the upper surface connection portion and the lower surface connection portion to support its assertion that these portions are equal to each other and that they are both equal to length ( $T$ ). Thus, length ( $T$ ), as assigned by the Office Action to these portions of Gerstung's **Fig. 4**, is a specific dimension. Moreover, the assignment of this specific dimension is essential to support the anticipation rejection and to show the invention "in as complete detail as contained in the claim." MPEP 2131. Consequently, the Office Action's reliance on MPEP 2125 for this purpose is improper.

The Office Action's limited interpretation of the unseparated, overlapping portions is inconsistent with Gerstung's statement that "the adjoining elements of each plate are, except where the crests of the corrugations overlap, separated from each other to provide openings 48." Gerstung does not state that the adjoining elements of each plate are separated, except where the flat portions of the crests of the corrugations overlap, yet that is how the Office Action proposes to interpret Gerstung. It is clear from Gerstung's **Fig. 4**, that a curved portion of the crest of each "approximately rectangular" corrugation overlaps its adjoining corrugation. In

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<sup>2</sup> This portion of MPEP 2125 is entitled: "PROPORTIONS OF FEATURES IN A DRAWING ARE NOT EVIDENCE OF ACTUAL PROPORTIONS WHEN DRAWINGS ARE NOT TO SCALE." MPEP 2125 pg. 2100-66 (8th ed., Rev. 2 May 2004) (emphasis added).

particular, as depicted in Gerstung's **Fig. 4**, the curved portion of one corrugation clearly overlaps the flat portion of the adjoining corrugation. Gerstung's specification includes no language which excludes this curved portion from the area of overlap, and the Office Action's limitation of the connecting portion only to Gerstung's overlapping flat portions simply is not supported by Gerstung's specification. Thus, the Office Action has failed to demonstrate that Gerstung's overlapping crest should be interpreted to exclude the curved portion at the ends of the corrugation's crest or that a person skilled in the art would read Gerstung in the limited manner proposed in the Office Action. The Office Action's reading of this additional limitation into Gerstung's disclosure is improper, especially in the context of an anticipation rejection. In view of the foregoing amendments and remarks, Applicants respectfully request that the Examiner withdraw the anticipation rejections based on Gerstung.

### **Conclusion**

Applicants respectfully submit that this application, as amended, is in condition for allowance, and such disposition is earnestly solicited. If the Examiner believes that a further interview with Applicants' representatives, either in person or by telephone, would expedite prosecution of this application, we would welcome such an opportunity. With reference to Footnote #1, although the Office Action indicates that it provides a drawing on which features are identified in red ink, the Office Action includes only a black ink drawing. If the

Examiner maintains the anticipation rejections, Applicants respectfully request that the Examiner provide the correct copy of the drawing including any red ink markings and restart the response period.

Respectfully submitted,

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